

# University of Arkansas Engineering & Mathematics Partnership Program

The *University of Arkansas Engineering & Mathematics Partnership* is a partnership of the University of Arkansas (UA) and public and private schools in Northwest Arkansas (NWA) and eastern Arkansas (EA). The goal of the partnership is to provide increased content knowledge depth and content delivery tools that middle school teachers need to effectively implement the new mathematics Common Core State Standards (CCSS). The UA Engineering & Mathematics Partnership (UA-EMP) will focus on 6<sup>th</sup>-8<sup>th</sup> grade mathematics content areas that move one or two grade levels higher or lower than the current Arkansas Mathematics Curriculum Framework. This is a year two implementation of the University of Arkansas Engineering & Mathematics Partnership.

University of Arkansas participants include faculty and administrators from the mathematics department, the college of engineering, the college of education and the honors college. In addition, a mathematics specialist from the Northwest Arkansas Education Cooperative is actively involved in the program. The UA participants have a proven track record for designing and implementing highly successful curriculum related workshops and solid evaluations and results for middle school teachers, including Arkansas Department of Education grants.

Public and private school participants include administrators and 6<sup>th</sup>-8<sup>th</sup> grade teachers from twenty-one middle and junior high schools in Northwest Arkansas and Eastern Arkansas plus St. Joseph Catholic School (private) in NWA. Huntsville Public Schools (HPS) is the focus Local Education Agency (LEA) for the partnership. The UA-EMP aims to specifically target teachers who serve student populations of high poverty, high ELL (English Language Learners), or schools in improvement.

The 2011-2012 (year 1 of the grant) academic year involved 85 teachers. The training consisted of two 1-day mini-workshops, an eight-day summer workshop, and classroom observations for each teacher. The content for 6<sup>th</sup> and 7<sup>th</sup> grade teachers focused on the number system as well as ratios and proportional relationships. The 8<sup>th</sup> grade teachers focused on algebraic functions. In addition, all teachers received content training in probability and statistics.

The 2012-2013 program will build on the successes of the first year of implementation with a similar programmatic outline. The content areas will partially change to include the number system for 6<sup>th</sup> and 7<sup>th</sup> grade teachers and expressions and equations for 8<sup>th</sup> grade teachers. The program will continue to provide content training in the areas of probability and statistics for all teachers.

An external evaluation utilizes both quantitative and qualitative measures. The evaluations provide guidance for continuous improvement to ensure the project achieves maximum results. Expected results are 1) improved teaching effectiveness, 2) increased student achievement scores, and 3) increased student and teacher enthusiasm in mathematics.